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OVARIAN CASES.

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CASE VIII.—*Fibro-cystic Tumor of Uterus*.—Mrs. —, 37 years old, has borne two children. Since their birth, she had a miscarriage, six years ago. She has been, and still is, regular as to her catamenia. Three years ago, she was accidentally kicked in the left groin. Soon afterwards, she noticed a tumor in the abdomen, which has steadily increased. Bowels, formerly constipated, are now regular. No urinary trouble. She now has some shortness of breath; pain in the side; a feeling of weight and a tired ache. No bearing down in the pelvis. Feet have lately begun to swell a little. Appetite and digestion are moderate. She is still able to go about.

A large fluctuating tumor fills the abdomen. It is dull in front and resonant on the flanks. There is a lobulated prominence over the left inguinal portion of the cyst. The os uteri is high up, not freely movable. The uterus is drawn to the left; the depth of the uterine cavity is four and three-fourths inches.

She is urgent for an operation.

The diagnosis is a multilocular ovarian cyst, partially solid perhaps, and drawing up and pushing over the uterus.

March 19th.—*Operation*. An open fire; a room with a temperature of 75°; a table and tub carefully fitted to the tube of the trocar; the rubber sheet of Mr. Wells fastened to the abdomen; and ether given in Underwood's inhaler—these comprised the more essential preparations. Drs. Sinclair, Campbell and G. H. Gay assisted me.

The sac was exposed and punctured, and a considerable quantity of fluid drawn off. As it ceased to flow, and a large tumor could still be felt, the trocar was thrust in deeper, but struck a solid mass, and brought only blood. Examination now revealed a large solid tumor, behind the cyst, and forming its posterior wall. It was free from adhesions and movable. The incision was enlarged, and the whole tumor delivered from the abdomen. It now proved to have a central root, and to be a uterine tumor, fibro-cystic. The solid portion was large, dense and heavy. The large, long-bladed screw clamps of Mr. Wells were made to embrace the pedicle, and the tumor was cut away. It was seen that the section was through the uterus, as its cavity was cut across, and a probe passed into the centre of the pedicle emerged in the vagina. Meanwhile, the cavity of the abdomen was occupied with a large warm sponge, and the sides of the abdomen were pinched together. Warm flannels were applied to the epigastrium, and the feet and legs of the patient, rolled in a blanket, lay in the sun by a closed window. The pulse continued firm and slow, and the patient was wholly unconscious. She retched and vomited once, when the solid tumor was delivered. The cut surface of the uterine pedicle was

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full of veins, patent and large. It was found impossible to secure all these by pressure. Large hemp cord was carried through and through the pedicle, by transfixion with a long needle, and the mass was tied in four segments. A number of single silk sutures were applied to individual vessels, and the whole mass was cauterized with the hot iron and afterward covered with solid perchloride of iron and charpie. All bleeding having ceased, the uterine pedicle was secured from slipping back by being transfixed by a long steel needle, which lay across the pubes. The ligatures were all brought outside. The sponge was removed. The incision was closed by silk sutures and plaster; cotton batting and a binder were applied, and the patient lifted into bed, which was adjacent. Her condition was excellent. Full pulse and no vomiting.

The pedicle being so easily secured on the outside, together with the fact that the patient exhibited so much vigor, were circumstances inspiring hope, although the extreme gravity of the operation was realized. Two hours were consumed in all the steps of the operation. It was completed on Monday, at one o'clock.

Monday evening, the patient had rallied well. There was no vomiting. She passed urine frequently, and without effort.

Tuesday.—Hæmorrhage from the pedicle, slow, oozing, persistent, continuous. Temporarily checked by styptics and pressure. Otherwise doing well. Controls bladder; has no vomiting; not much pain; some opium was given. Liquid nourishment.

Wednesday.—Bleeding continues; dark, thin, oozing; constant efforts were made to check it. Patient not so strong. Abdomen more distended, but not tender. Cotton batting lightened and bandage loosened. No vomiting; more thirst. Patient is allowed cold water and ice; broth; milk gruel; champagne. She passes her urine easily; sleeps well in the day. I was called at 2, A.M., and found her in a partial syncope, gasping for breath and alarmed. Increased stimulants and opium. Hæmorrhage continues.

Thursday.—Discharge from pedicle is more offensive, but the bleeding is less. Irritation about the bladder; pain in abdomen. Distension of colon. Aspect haggard. Pulse rapid. No vomiting. Syringed out the vagina, emptied the bowels by warm enema, drew the urine. Removed all the dressings from the pedicle; no bleeding. Removed a stitch in the wound above the pedicle; this opening gave exit to a considerable foul fluid, and gas from the peritoneal cavity. An elastic catheter was introduced, and everything cleansed with dilute liquor sodæ chlorinatæ. There is still greater distension of abdomen.

Friday.—Perfectly easy and conscious; no discharge; no hæmorrhage; no vomiting or pain; countenance pinched; hands livid; no pulse at wrist. She died quietly at noon, four days (or ninety-five hours) after the completion of the operation.

I cannot but think that this patient would have survived the operation of ovariectomy.

CASE IX.—Cancer of the Ovary.—In October, 1873, I for the first time examined Miss —, about 18 years old. She had enjoyed good health up to two years ago, when she began to flag. About six months ago, it was noticed that the abdomen was enlarging. She is now as large as a woman at the ninth month of pregnancy. A semi-

fluctuating tumor occupies the space from the pubes to above the umbilicus. It does not transmit a perfectly distinct wave to the hand. It is oval and uniform in shape; dull on percussion; but the flanks are resonant. The uterus is virgin, movable and the depth a little less than two and a half inches. The cavity of the pelvis is not much encroached on. Nothing is felt by the rectum.

The patient is quite reduced and has a good deal of dyspnoea and some oedema of the legs. Pulse 120.

It was not until reduced to this condition that she would hear of an exploration or operation. The diagnosis did not appear to me perfectly clear, though I leaned to the belief of multilocular ovarian cysts, with jelly-like contents.

The usual preparations were made for the operation, and the precautions previously detailed were adopted. Doctors Nichols and Driver, of Cambridge, and Underwood, of Boston, assisted me.

An incision of four inches revealed the tumor, which was found considerably adherent. It was not of the white color of an ovarian cyst, but darker and reddish. Over its surface ran enormous and tortuous bloodvessels. The trocar was plunged in, without result; it was then pushed deeper in various directions, but no fluid came. On withdrawing the instrument, a thick, sago-like material oozed out, with hæmorrhage. The finger, passed into the trocar wound, could penetrate deeply through a soft, bleeding, homogeneous pulp, which was withdrawn in masses. It had all the appearance of soft cancer, which the microscope afterwards confirmed. The nature of the tumor, the size of the vessels, the adhesions and the constant hæmorrhage forbade our going farther. The bleeding was checked with perchloride of iron and sponges, and the wound left open, but gently bandaged. The bleeding persisted, though not excessively. The patient was kept warm and stimulated. She sank, and died the following day.

CASE X.—Ovarian Cyst.—Miss —, always delicate and a dyspeptic, began to fail in health and increase in size, last autumn (1873). Of late, she has grown large more rapidly, and now the abdomen has the size of the eighth month of pregnancy. The shape is oval; the front is dull, the flanks resonant on percussion. The umbilicus is not everted. There is an indistinct fluctuation. The pelvis is empty. The uterus is small, movable and normal. A fine trocar being inserted through the abdomen, a ropy, chocolate-colored fluid was drawn out; but it contained nothing remarkable under the microscope.

The patient is much reduced; she can only move about a room, gently. She is somewhat anæmic; pulse feeble. Her digestion is wretched, so that she has lately subsisted on pills of raw beef. Unfortunately, an operation has only been consented to now, when she has reached this feeble state.

An operation was finally decided on, after consultation, as a last resort, though we had grave fears that she might not be able to rally.

Operation, January 31st, 1874, with the assistance of Drs. Minot, Underwood and Chadwick. The incision revealed a partially collapsed and ruptured cyst, with ovarian fluid in the peritoneal cavity. Not many adhesions. As the trocar plunged into the tumor gave no result, the sac was seized with hooked forceps, drawn forward and laid open. With the hand inside the sac, it was now delivered from the abdominal cavity. The pedicle was distinct and long. A clamp was

applied and the cyst cut away. Large warm sponges were used to carefully cleanse the abdominal cavity. The wound was closed with four deep silk sutures, the clamp being secured at the lower end of the incision.

In less than an hour from the first steps of the operation, the patient was established in bed and warmth applied. She bore the operation better than was feared. At 4, P.M., she vomited, and then had fair reaction. She took beef-pills, brandy and opium; the urine was drawn.

Feb. 1st.—She was pretty comfortable, but lacked nourishment. In the evening, she became very hot, dry and restless, with pains in the abdomen and a little tenderness. One stitch was taken out, and a little odorless serum oozed out. Gentle pressure brought nothing more, and Douglass's fossa was found empty, per vaginam. She had vomited a green fluid in the afternoon. One fourth of a grain of morphia was now given subcutaneously.

Feb. 2d.—Reported an easy night. Nothing was put into the stomach, but an enema of beef-tea, and a little brandy was ordered every three hours. One pint of water, at 98° Fahr., was allowed to flow into the abdomen through a fountain syringe, by the opening where the stitch was removed. It ran out a little discolored, but not offensive. A temporary pain was produced, which passed off, and she expressed herself as feeling better. One fourth of a grain of morphia subcutaneously, and the enemata.

Evening.—Some fever. Abdomen less tender; has passed urine. Has had a quiet day, but is afraid to take anything into the stomach.

Feb. 3d.—The abdomen is slack and less tender. One more stitch taken out. Douglass's fossa empty. Fever is less. Urine passed. "Can't think of nourishment." Continue enemata, and morphia under the skin, when required.

Feb. 4th.—A fair night. Abdomen lax. One more stitch removed. Takes by the mouth, and retains, beef-tea, gruel and wine. Complains of a tenderness of left parotid gland; there is a slight swelling there.

Evening.—High temperature; skin dry; abdomen as at last report. Large swelling of left parotid, with pain and throbbing. Ordered hop poultice; morphia as before, and nourishment.

Feb. 5th.—A bad night. The parotid larger. Abdomen quiet. Douglass's fossa empty. The vagina contains a foul, semi-purulent secretion. The peritoneal cavity gently washed out through the wound, as before; no result followed. In the afternoon she vomited; and in the evening she died, five days and twelve hours after the operation.

Great previous exhaustion and dyspepsia, shock, non-assimilation, septicæmia were the sequences which led to a fatal result.

CASE XI.—*Papillomatous Degeneration of the Ovary*.—The patient, 29 years old and married, when first seen by Dr. Marcy, of Cambridge, in November, 1873, had an oval, symmetrical tumor, nearly in the median line of the abdomen, and reaching above the umbilicus. She supposed herself pregnant.

Dec. 11th, while dancing, she complained of severe pain in the abdomen, and fell to the floor insensible. Since this time, she has been quite ill; her abdomen rapidly enlarged, and (Dec. 14th) measured thirty-seven and a half inches at umbilicus, and fluctuated. The fluctuation changed with position. Uterus normal in depth; movable, but bent over to the left side.

Dec. 22d.—As she was suffering extremely, we decided to tap her. I removed fourteen pints of yellowish-green, clear fluid. Specific gravity, 1020°. Coagulated solid with nitric acid; some blood disks and pus cells seen with microscope. An irregular, firm mass remained in the left inguinal region. Diagnosis doubtful; I leaned to the belief of a subacute peritonitis, with a deposit of lymph.

The uterus now soon became unmovable, and the contents of the pelvic cavity fixed and inelastic. A gradual enlargement of the abdomen took place in January and February, a tumor pushing up from the left groin to the umbilicus and left lumbar region. The left side was much distended and fluctuating. An exploring trocar showed the contents to be a thin, purulent fluid, full of pus-corpuscles. A fluctuating point developed in Douglass's fossa, and was punctured by Dr. Marcy. Three ounces of a clear albuminous fluid escaped. This opening was enlarged, and admitted a sound two inches.

The tumor increased, and, on March 4th, Dr. Marcy, with the assistance of Dr. Hildreth, carried up a long curved trocar through the opening in Douglass's fossa, obliquely towards the median line, four inches; entered a sac, and drew off forty ounces of pus. A firm mass remained. This vaginal puncture was kept open, and, soon after this, red, villous masses escaped from it, which Dr. Fitz pronounced to be papilloma.

"The diagnosis was at last undoubted. Primarily an ovarian cyst, which ruptured, allowing the escape of its fluid contents into the abdominal cavity; subacute peritonitis followed, and now, a multilocular cyst, more or less filled with hypertrophic villous masses, closely bound by adhesions to the pelvic cavity.

"During March and April, the patient improved very much in her general health, although the tumor was slowly enlarging.

"Mrs. M. determined upon the attempt of removal, after full explanation of her unfavorable condition and the great gravity of surgical interference.

"May 7th.—The operation was performed by Dr. Cheever, assisted by Drs. Underwood, Hildreth and Marcy. The cyst was firmly adherent anteriorly, and, attempting its separation, the thick, friable walls ruptured, allowing the escape of a portion of its fluid contents into the abdominal cavity. Extensive adhesions to the omentum, intestines and parietal walls were carefully separated, and required several ligatures. It was necessary to carry the incision two inches above the umbilicus. The pedicle was broad and thick, was clamped, but too short to be brought out externally, and was secured by a double ligature and left in the pelvic cavity. A large-sized Sims's drainage tube was carried through the vaginal opening and lower angle of the wound.

"The cyst contained about a quart of purulent fluid and several large papillomatous growths, which were easily broken down and proved a source of very troublesome hæmorrhage. The right ovary contained a cyst of the size of an English walnut, which was easily enucleated.

"Owing to the great loss of blood and the tedious dissection of the adhesions, the patient's condition was one to cause anxiety, and the latter stages of the operation were hastened as much as possible. The patient rallied slowly and imperfectly from her almost moribund condition.

"There was slight nausea, no vomiting, no bleeding, no pain. Took

beef-tea and brandy, in small doses, frequently. Enema of the same every two hours. Evening temperature, 99°. Pulse 112. Extremities warm. Urine freely secreted. Mind clear. Slept some.

" May 8th.—Had a comfortable night. A watery fluid, mixed with blood, flows from the tube. The abdominal cavity is washed every six hours, with a weak solution of carbolic acid, until it flows clear.

" Noon.—Temperature 100°, and pulse 120. Tube obstructed, and the contents, which were washed out, were foetid. The microscope shows monads, bacteria, &c., in abundance.

" May 9th, A.M.—Slept part of night. No nausea; no pain; abdomen not tympanitic. Temperature 102°; pulse 140, weak. Extremities cold. Rapidly sinking."*

At Dr. Marcy's suggestion, transfusion of blood was tried, once by myself, and again by Dr. Marcy, some hours later. No apparent effect was produced; and she sank and died, about forty-eight hours after the operation.

CHLORAL HYDRATE AND MORPHINE.

By E. CHENERY, M.D., of Boston.

THE employment of chloral or chloroform in conjunction with an opiate in the treatment of painful affections, enables us to reach a degree of relief from suffering, accompanied by sleep, not heretofore attained. For, though opiates may be usually relied on to relieve pain, they "prop the eyes open," as it is said, in about one half of the cases, while chloral alone is not to be depended on as an anodyne, especially when the agony is great.

Some years ago, the writer had the case of a man who was a martyr to frequently recurring attacks of what was called "bilious colic." They had followed him a long time and were supposed to spring from habitual costiveness. Indeed, so extreme was this costiveness that he never seemed able to get along without physic, of which he required large doses—a teacupful of castor oil or a quarter of a pound of Epsom salts sometimes being necessary. He was eventually cured, however, by doses of one-half drop of croton oil repeated each night for a few times. It was found, by experience, that from a half to a whole teaspoonful of chloroform, with a full dose of laudanum, gave the quickest and best relief of the colic when the attack came on. Chloroform alone did not seem to answer the turn, while treatment by cathartics and opium was too slow and was apt to be followed by several days' feverishness. When the chloroform was used with the opiate, much less of the latter was required to give relief than when the chloroform was omitted, and the patient was much more likely to fall into a tranquil sleep and not require a second dose. It seems that Nussbaum, Claude Bernard and others found that chloroform and opiates produced a much more prolonged narcosis than would result from either alone, while insensibility to pain was also greatly protracted. Rabuteau gave narcein to a dog, after which he chloroformed him to sleep. After waking, the dog remained insensible to pain, and did not fully recover sensation till next day.

* For a full account of this case, by Dr. Marcy, see this JOURNAL for Sept. 24, 1874.

In a severe attack of internal neuralgia, the writer found morphia by the skin with chloral hydrate by the stomach or bowel to work admirably. Even large doses of chloral would not relieve the pain, and, of course, would not produce sleep, while morphia, when given alone, would be required in large doses, to relieve the distress, and would not be followed by sleep. When the two substances were used together, a much smaller dose of each was required to effect relief and procure sleep, while relief from the pain was very much more protracted than when the morphia was not aided by the chloral.

In several instances, the writer has prescribed these medicines in conjunction, and with the happiest effect. In such cases as are rendered wakeful on the use of an opiate, the writer has learned to supplement its anodyne effects by small doses of chloral, in order to secure sleep.

Dr. W. Pichler* found the combination of these two agents most valuable in the treatment of gall-stone colic. In Carlsbad, this disease is very common, and trials of morphia and chloral together proved much more useful than either alone, or any other remedy or combination of remedies. He says that, on inquiry, he found that other doctors had gained a knowledge of the same fact in the treatment of this disease. He therefore commends the combination in gall-stone colic and in the passage of renal calculi and neuralgia. We have not yet had a fair opportunity to test the value of this combination in cases of that form of neuralgia known as *angina pectoris*. In a severe case of sciatica, the external application of a mixture of one part of chloroform, two parts of oil of turpentine and five or six parts of alcohol, with the internal use of opium and quinine, gave excellent results. In this case, two portions of sulphate of morphia, by hypodermic injection near the most painful part, caused excruciating distress, with swelling and soreness of the parts, as if severely bruised. For many years, the writer's panacea in the treatment of hysterical spasms has been the internal use of a mixture of chloroform and laudanum, after the paroxysms have been relaxed by the inhalation of chloroform, so that the patient could swallow. One good dose of this mixture has usually sufficed to explode the fits, and persons who have been frightfully convulsed have in this way been speedily made "to take up their bed and walk."

The similar action of the opiate and chloral and of the opium and chloroform, somewhat confirms the belief of Dr. Liebreich, that chloral is converted into chloroform in the system, and as such produces its effects.

So far, then, as my own experience goes, I regard chloral a very great addition to our medicines, if for no other purpose than to correct the wakefulness so commonly following the use of opium, and to cause that agent to act in smaller doses, with more prolonged effect and without the feverishness and other evil consequences of its free use.

* Allgemeine Wiener Med. Zeitung, Nov. 18, 1873.

Progress in Medicine.

REPORT ON GENITO-URINARY DISEASES.

By T. B. CURTIS, M.D.

The Action of Mercury, internally administered, upon the Blood.—Dr. Wilbouchewitch, of Moscow (*Archives de Physiologie*, p. 509, 1874), publishes a very interesting article on the alterations of the blood produced by the administration of mercury. His researches were carried on at the Histological Laboratory of the College of France, in Paris, by means of the ingenious apparatus for counting blood corpuscles devised by Malassez and described by him in the *Archives de Physiologie* (1874, p. 32). This method of blood corpuscle numeration is briefly as follows. The blood, sufficiently diluted by the admixture of a stated proportion of artificial serum, is introduced into an artificial capillary made of glass, of which the capacity is accurately known, and which is sufficiently fine to bear a microscopic examination with an object glass capable of defining the blood corpuscles. By means of this apparatus, the number of corpuscles, red and white, contained in a known bulk of diluted blood being ascertained, it is easy to calculate the number of corpuscles contained in the unit of measurement, say a cubic millimetre. The investigations of Malassez have already afforded very valuable contributions to our knowledge of the composition of the blood in man and animals, in health and disease; his method is now being applied by himself and others to the study of the action of drugs, and the article to which we now call attention is one of the first fruits of this application; the results thus obtained are highly interesting, not only as a contribution to our knowledge of physiological therapeutics, but from the point of view of utility in practice. It is always so gratifying to meet with experimental research in therapeutics which agrees with and corroborates the results of empiricism, and admits of practical application, that we propose to expose, with some detail, the conclusions arrived at by the author. His observations were made at the Midi Hospital, upon patients subjected to mercurial treatment. He investigated the state of the blood before, during and after specific treatment, examining in all 168 specimens of syphilitic blood, and every care was taken to avoid causes of error. He first determined the normal figures in healthy subjects taken under conditions similar to those in which his patients were placed; finally, he also studied the action of mercury upon animals, examining the blood before, during and after the administration of the drug. In healthy subjects, the number of blood disks averages about 4,600,000 to the cubic millimetre; it varies in different individuals between four and six millions, but in any one subject the number remains pretty constant, the variation due to meals and to excretion of fluid being only temporary.

In syphilitic subjects examined before the beginning of the specific treatment, the author found a progressive decrease of blood disks, amounting, generally, to more than 200,000 daily. As soon as the mercurial treatment (consisting of bichloride, two-thirds of a grain, or protoiodide, one and two-thirds grains) was instituted, the blood corpuscles began to increase in number at the daily rate of about 80,000

during the first week, and after that at the rate of 120,000 daily. This increase continued during two or three weeks only, and was then succeeded by a retrograde process of daily diminution, which, in about a fortnight, reduced the number of disks to the figure obtained at the beginning of the specific treatment. If the administration of mercury were then suspended, it was found that the destruction of corpuscles ceased, and about a week after the cessation of the mercurial treatment, the blood began to grow richer at the daily rate of about 90,000. As a general rule, the white corpuscles, of which Malassez and Wilbouchewitch find 1 to 600 or 700 disks, underwent variations inverse to those of the red corpuscles.

Thus we see that, before any specific treatment, syphilis causes a rapidly progressing anæmia; as soon as mercury is administered, the blood begins to grow rich in red blood corpuscles; this beneficial action is, however, of short duration, lasting only two or three weeks, and is succeeded by a daily decrease of red blood corpuscles, which is arrested by the cessation of the mercurial treatment. Our author therefore concludes that the administration of mercury in *excessive doses*, or *during too long a period*, gives rise to an anæmic condition; the drug, after having played the part of a hæmatopoietic reconstituent, exerts a destructive action on the blood disks, in consequence of its gradual accumulation in the system; after a temporary cessation of the specific treatment, the mercurial anæmia ceases to progress, and the corpuscles begin again to increase in number. Wilbouchewitch attributes this phenomenon to gradual elimination of the excess of mercury, by which the amount of the drug in the system is restored to the proportion favorable to hæmatopoiesis. This period of the action of mercury appears to be succeeded in turn by a phase in which the syphilitic anæmia sets in anew, and again indicates the necessity of having recourse to the reconstituent action of the specific treatment.

Experiments on rabbits showed that mercury constantly caused a diminution of blood corpuscles, which ceased when the administration of the drug was suspended.

In conclusion, Wilbouchewitch says:—"These experiments suffice to show that the progressive diminution of disks which I found to take place in syphilitic patients when the mercurial treatment had been carried beyond certain limits, was due to the action of the specific treatment. Mercury, given in large doses, begins at once to cause anæmia; if given continuously in small doses, the drug accumulates in the system, and soon acts as if given in excessive doses. The physician must, therefore, make it his aim to use mercury so as to utilize its hæmatopoietic action, and avoid its destructive effects; for this purpose, the information obtained by means of the counting apparatus of Malassez is very valuable."

Guided only by clinical experience, Fournier (*Gazette Hebdomadaire*, March 1, 1872; *La Syphilis chez la Femme*, Paris, 1873) has adopted what he calls the "method of successive treatments," which consists in frequently interrupting the administration of mercury for several weeks or months.

The Calibre of the Normal Urethra.—Otis (*New York Medical Journal*, April, 1874), states that the average urethral calibre equals at least number 30 of the French scale, and that the occurrence of urethrae from 30 to 36 would not prove rare if examinations were made

with suitable instruments; he also relates particulars of cases bearing out these assertions. He has now eight cases recorded of a urethral calibre of 34 (French), two of 36 and one of 40. It is common, he adds, to find a fully developed penis, with a meatus of 20 (French) or less, and on slitting it, to find a 30 or 31 steel sound slipping by its own weight through the urethra and into the bladder. This case, in which the calibre of the urethra proved to be 40 (French), originally presented a meatus contracted to 24. The meatus therefore cannot be taken as a reliable guide in estimating the normal calibre of the canal.

Urethrotomes for Strictures of large Calibre.—Bumstead (*Archives of Dermatology*, New York, Oct. 1, 1874) describes and figures instruments for the internal division of strictures of medium and large calibre. He has hitherto been in the habit of using Maisonneuve's urethrotome, but in some cases he thinks it may be convenient to use an instrument with a voluminous cylindrical shaft, capable of stretching the stricture, thereby facilitating its division. Such instruments as he describes are also, he says, more easy of introduction through wide strictures, especially when complicated by false passage, than are the finer urethrotomes, which are suitable for narrow strictures. He has therefore had made a set of four instruments whose shafts measure 15, 20, 25 and 30 (of the French scale), and which end respectively up to numbers 20, 25, 30 and 38. We must refer the reader to the original article and figures, for the description of the instruments which appear well devised for the object in view. It may be noticed that Bumstead herein agrees with Otis, that it may occasionally be necessary to resort to internal urethrotomy in cases when the canal admits a number 30 shaft.

External Urethrotomy.—Güterbock (*Archives für Klinische Chirurgie*, vol. xvi. 1874) has an interesting paper on the indications and performance of this operation, which he thinks should be resorted to at once in all cases of traumatic injury to the perineal urethra, as well as in many cases of narrow stricture complicated with false passages. He prefers to open the urethra in front of the lesion and incise from before rather than to open it at the apex of the prostate as advised by Simon and Cock. Following the practice of American surgeons, he disapproves of the tied-in catheter, except in cases where the urine is strongly ammoniacal; here the catheter may be tied in till the wound has granulated. Thirteen cases, seen in the wards of Wilms, are related; of these, six proved fatal from secondary hæmorrhage, showing the necessity of careful hæmostasis after this operation. Three days after the operation, it is generally advisable to introduce a large sized instrument, with a view to preventing contraction of the newly made canal; this measure should be repeated every two or three days. In some cases, however, no instrument should be passed through the urethra for several weeks.

Ammoniacal Urine and Urinary Fever.—Professor Gosselin and his interne, A. Robin, have published in the *Archives Générales de Médecine* (May and June, 1874), an elaborate essay on this subject. With a view to determining the causes of the feverish attacks which supervene in consequence of lesions of the urinary organs, they instituted a course of careful chemical researches and of experiments upon animals. Urinary fever has generally been explained by two theories,

neither of which suffices to account for all the phenomena involved in the problem. According to one theory the toxic phenomena are due to secondary alterations of the kidney, occasioning insufficiency of the organ to perform its excretory functions. According to the other, the poisoning of the system is due to resorption of altered urine from the surface of the wound, or from an inflamed and ulcerated mucous membrane. It is, however, an established fact which the authors took as their starting point, that operations on the urinary organs are particularly dangerous when the urine is ammoniacal. This condition of the urine gives rise to local and general disturbance of a most serious nature, consisting of feverish and inflammatory manifestations of a special kind. Our authors were consequently led to institute experiments and researches for the purpose of determining the nature and causation of these toxic phenomena, and of ascertaining the part played in their production by carbonate of ammonia.

The ammoniacal character of altered urine is known to be due to the decomposition of urea, which body, under certain circumstances, and by a mechanism but imperfectly understood, takes two equivalents of water, and becomes carbonate of ammonia. Pasteur and van Tieghem are of the opinion that this chemical reaction only takes place under the influence of certain vegetable ferments belonging to the *torulæ*, which have to be introduced into the urine from without. Many facts, however, militate against this theory. Be this as it may, the production of carbonate of ammonia from decomposed urea is a fact. What are the properties of this salt when absorbed into the system? The authors made many and various experiments upon guinea pigs and rabbits, by means of subcutaneous injections, employing watery solutions of the carbonate, normal urine, carbonate of ammonia dissolved in normal urine, ammoniacal urine, and lastly, carbonate of ammonia dissolved in ammoniacal urine.

1.—Action of carbonate of ammonia dissolved in water (25 centigrammes to 1 gramme):—The results varied according to the doses; when injected in one large dose (exceeding 1 gramme for a rabbit), tetanic convulsions took place, followed by death; among other concomitant phenomena, epistaxis and albuminuria were frequent; moreover, there was always a diminution of temperature amounting to 1°, 2° or 3°, Fahr. The lesions found after death were chiefly intense congestion of nearly all the viscera, including the kidneys; the blood was altered, being brownish in color, with deficient coagulation. If, on the other hand, the solution were injected in small daily repeated doses (50 centigrammes for a rabbit), the poison was well tolerated for two or three weeks, and the disturbances set up, the death of the animal and the appearance after death were all referable to the local inflammatory lesions occasioned by the injections. Thus in small and often repeated doses, carbonate of ammonia produces little or no general disturbance, but occasions destructive local effects; in large single doses it produces general phenomena differing wholly from those characteristic of urinary fever.

2.—Normal urine injected subcutaneously produced only local effects.

3.—The carbonate dissolved in normal urine was found to be actively poisonous to an unexpected degree, considering the results obtained in the two preceding sets of experiments. Injected in quite

small doses, this solution produced general feverish phenomena and intense local inflammation, soon followed by death. These effects were proportionate in intensity to the amount of carbonate of ammonia added to the urine.

4.—Ammoniacal urine derived from a patient with stricture and cystitis, was found to possess still greater poisoning qualities than the preceding solution. Injected in small doses, it occasioned a considerable and rapid rise of temperature, followed by defervescence and death. With the feverish attack following each injection, various other phenomena were noted, as diarrhoea and albuminuria.

5.—Finally, carbonate of ammonia dissolved in ammoniacal urine was found to greatly enhance the poisonous properties of the latter; the feverish attacks were followed by a fall of temperature below the normal degree, and by death. The deleterious effects were still more marked, and more rapid, when the wounds containing the injected fluid were exposed to the air.

From these experiments, our authors derive the following conclusions:

1. Ammoniacal urine rapidly causes fever, and by varying the modes of injection, the different thermic forms of urinary fever may be produced.

2. It is highly poisonous, and its toxic effects increase proportionately to the amount of carbonate of ammonia which it contains.

3. The local lesions experimentally produced explain analogous local lesions observed in man where wounds are in contact with ammoniacal urine.

4. The visceral lesions (congestion, &c.) agree with those found in subjects who have died of urinary fever.

5. The toxic action of ammoniacal urine is enhanced by the access of air.

6. The rapidity with which normal urine, mixed with blood and pus, undergoes decomposition in presence of air, explains how febrile accidents may ensue after operation upon the urinary organs, when the urine was acid before the operation. Gosselin and Robin recognize, however, that carbonate of ammonia is not the only factor in the toxic action of altered urine, inasmuch as the fatal dose of the carbonate, when dissolved in urine, is only from one tenth to one fifth of the fatal dose in watery solution. They see in urinary fever points of analogy with the phenomena of septicæmia. "Urinary fever, thus considered, would be a complex syndrome due to the combined action of chemical and of septic poisons." In this connection we would recall the designation "uriseptic fever," proposed by Dickinson, as a substitute for the many unsatisfactory terms hitherto in use.

The Treatment of Ammoniacal Cystitis by Benzoic Acid.—In a second paper (*Archives Générales de Médecine*, Nov., 1874), Gosselin and Robin advise the use of benzoic acid as a corrective to the ammoniacal state of the urine. The drug may be given dissolved in large quantities of water, or suspended in mucilage. The initial dose is 15 grains, but it should be rapidly increased to 45 or 60 grains, and may even be carried in some cases to 90 grains; at this dose, however, heat and dryness of the fauces begin to be complained of. The action of the acid upon the altered urine is not immediately recognized; but in seven or eight days the ammoniacal character and fœtidity gene-

rally disappears, and phosphatic deposits cease to form. The conclusions of this article are as follows :

1. The ammoniacal state of urine causing a large part of the accidents which follow operations on the urinary organs, it is desirable to diminish or suppress that condition.

2. Benzoic acid, balsams which contain it, and probably other vegetable products (salicine, cinnamic acid, etc.), produce this result.

3. Hippuric acid, which is the product, acts in several ways :—*(a)* by forming hippurate of ammonia, which is less toxic than carbonate of ammonia.—*(b)* by retarding the decomposition of the urine, and consequently the production of the carbonate of ammonia.—*(c)* by preventing the formation of insoluble phosphatic deposits which are the cause of cystitis and the origin of calculus.

4. The administration of benzoic acid is advisable for patients suffering from ammoniaco-purulent cystitis, and particularly for those who are to undergo operations upon the urinary organs.

Reports of Medical Societies.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY. C. E. VAUGHAN, M.D., SECRETARY.

The Society held its semi-annual meeting at North Cambridge, Oct. 14, 1874.

Dr. S. W. DRIVER read the history of four cases of brain disease.

CASE I.—R. L. M., car-driver, aged 28; single. General health and habits good. An otorrhœa of long standing had recently dried up. Left work on Sept. 15, 1870, on account of headache. On 16th, worse headache, and pain in back. On 17th, headache intense, frontal. Was chilly, dull in comprehending, and in expressing himself. Restless at night.

Sept. 18th.—Convulsions at 2, A.M. Seen at once, in second convulsion. Spasmodic action confined to left side. Pupils normal; pulse 80, regular. Convulsions frequent through day. Marked shock at first; rallying later. At night, pulse 80, irregular for first time.

Sept. 19th.—Reaction better. Convulsions less frequent during day. Pulse 85, more irregular. Respiration regular. Slight opisthotonos. Right side beginning to be affected. Left pupil most dilated.

Sept. 20th.—Convulsions every half hour, but ceasing after one drachm of bromide of potassium in divided doses. Consciousness and intelligence returned. Pulse 65; irregular.

Sept. 21st.—One convulsion last night. Has aura, or premonitory symptoms, at the usual times. Pupils dilated. Pulse 60; irregular. Temperature 99°. Tongue put out straight. Conscious. Spoke for first time, and put out hand. Sleepy for first time.

Sept. 22d.—Delirious at times; talkative; feverish. Says head feels heavy. Pulse 75, increasing to 85; pretty regular. Paralysis nearly gone; right side the weaker.

Sept. 23d.—No sleep. Pulse 120, irregular. Excited, suicidal. P.M.—Pulse 120. Micturition involuntary. Uses right side most. Intense pain in head. Opium administered, was followed by quiet and natural sleep.

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Sept. 24th.—Awoke conscious and intelligent. No delirium. Pulse 90, irregular. Pupils a little dilated. Urine under control. More sleep. Awoke rational. Told time correctly by watch. Temperature a little higher. Opium not continued.

Sept. 25th.—Slept nearly all night, waking when spoken to. Calm and intelligent. Weak. Skin cool. Febrile reaction in evening.

Sept. 26th.—Sudden change. Respirations 40, irregular. Pulse 120; thready. Can be aroused. Pupils sensitive. Foetid serous discharge from ear. P.M.—Rallied a little.

Sept. 27th.—Coma. Temperature 99°. Died on thirteenth day.

Autopsy.—Limited meningitis, with small deposit of lymph on anterior convexity of cerebrum, near fissure of Sylvius. Incision at this point opened an abscess of the size of a pullet's egg, with shreds of broken-down tissue hanging from the top. Wall about one fourth of an inch thick. No evidence of extension of the disease from the mastoid cells.

CASE II.—Mrs. K., American, married, aged 51. Health low. Nervous. Had suffered from vertigo. On a hot day, August 8th, went out hurriedly, on account of an alarm of fire in neighborhood. Said her head was dizzy. Seen by Dr. Driver in ten minutes. Pale, cold. Head thrown back, gasping once in ten or fifteen seconds. Jaw moving with respiration. Pupils contracted. Heart sounds not to be made out. Pulse 130 to 140, irregular, thready. Deglutition very difficult. Thought right pupil did not respond to irritation as readily as left. Half an hour later, at her house, respiration 40, pulse 130; cold. Had moved all the limbs, and left bed and passed urine. Catheter used from this time. Lying on right side. Right lid perhaps a little drooping. 11, P.M.—Lids same. Respiration and pulse quicker.

Aug. 9th, 8, A.M.—Respiration 60. Pulse 160. Bluish in face and under nails. Cold. Right lid paralyzed. Right pupil dilated and insensible. On compressing lips, blowing from right corner. Worse during day. Used external heat, beef-tea and brandy enemata.

Aug. 10th, 1, A.M.—Reaction. Respiration 40; pulse 132. Right pupil responding slightly. Warm. Took a little nourishment.

Aug. 11th.—Respiration 32. Pulse 120. Reaction better.

Aug. 12th.—Respiration 24, pulse 114. Turned head when called, and reached for objects. Right pupil responding. Paralysis of lid. No muscular paralysis below face and muscles of deglutition, excepting that urine flowed slowly from catheter.

Aug. 13th.—Failed and died exhausted at 2 A.M. No murmur found in heart, at any time, or physical signs in lungs. During first thirty-six hours, heart sounds could not be made out. During first twelve hours, action of heart and lungs most affected; as paralysis developed, their action became quicker.

Autopsy.—Twenty-four hours after death. Calvarium thin; small quantity of coagulated blood in longitudinal sinus. Dura mater healthy. Pia mater irregularly discolored over left convexity, owing to blood in meshes of arachnoid; pale over right side. Coagulated blood in one of the larger arachnoidal veins, over posterior part of left hemisphere. Base healthy. Inferior lateral vein on left side filled with thrombus, dark, hard; evidently ante-mortem; extending into lateral sinus. Brain substance firm. In grey matter in anterior part of base of left hemisphere, also in that lying beneath left corpus striatum, extensive punctated hæmorrhage.

In pericardium, a moderate amount of fluid. Wall of right ventricle of heart, thinner than normal. In left ventricle several soft, flattened grey masses, irregularly granular on surface. The larger ones contained cavities with smooth walls, with moderate amount of yellow, viscid, puriform fluid. Projections from these passed among columnæ carneæ. Hypostatic engorgement of lower part of left lung. Upper part of right, œdematous.

CASE III.—A. M. H., colored, aged 50. In good circumstances. Physique perfect. Seen Aug. 14th, with inflammation of middle ear; a perforation of tympanum; suffering. Went under care of specialists.

Seen again, Nov. 22d. Severe pain in ear relieved by subcutaneous injections of morphia. Anæmia, anorexia, low spirits.

Nov. 24th.—Better. Tenderness over mastoid. Sent to specialist.

Nov. 26th.—Remarkably well and in good spirits.

Nov. 27th.—3 A.M., vomited. Seen at 9. Pulse 60, regular. Respiration regular; tongue coated; nausea; no pain. Free discharge from ear.

Nov. 28th.—Better, but weak. Some pain in evening. Called in night; mad with pain in head. Feet cold. Pulse 60. Injected one-fourth of a grain of morphia subcutaneously. Slept.

Nov. 30th.—Dull pain when not under influence of opium. Pulse 60, rising. Disposed to be chilly. Dull.

Dec. 1st.—Not as well. Feet warm; sprawled out of bed. In night, a little wandering and twitching. Pulse 70. Bromides and subcutaneous injection of morphia, *pro re natâ*.

Dec. 2d.—Dull. Less twitching. Pulse 70, and quickened by rising. Could stand, unsteadily. Twitching increased. Right foot kicked out of bed. Delirious.

Dec. 3d.—A.M., mind clear, but misused words. Could see well, at distance. Pulse 76, regular. Right leg weak. Evening, pulse 100, irregular for first time.

Dec. 4th.—Seen by Dr. Wyman. Pulse 100, lying; 120, sitting; irregular. Sharp twitching. Kicking with right leg. Delirium. Could not stand. Less otorrhœa. Diagnosis: inflammation at base of brain; probably meningitis.

Dec. 5th.—Worse. Loss of sight. Soon, head was fixed to left, and eyes to right. Used left hand. Pulse 120, rising. Recognized no one.

Dec. 6th.—2 A.M. Pulse 120, rising to 160. Respiration 50, increasing. Died at 9 A.M.

Autopsy.—Twenty-four hours after death, showed general meningitis. Deposit of lymph along course of vessels, extensively toward base; primarily in sheaths. Over petrous portion of left temporal bone, abscess, from carious perforation from mastoid cells, backward and upward.

CASE IV.—V. S. S., American, aged 55. In good circumstances. Pleuro-pneumonia dating from a chill on January 23, 1874. Lung cleared well at top and middle. On 24th, pulse and temperature rose again, and signs of pleuritic effusion appeared, with infiltration of lung.

Feb. 3d.—Moderate muco-purulent expectoration began, increasing on 4th and 5th to a pint and a half in twenty-four hours. Signs improved; no cavity found.

On the 12th, patient began to flag.

Feb. 13th.—Chill twice, and vomiting, which continued until 18th; pulse rising to 134.

Feb. 19th.—Waking from sleep, symptoms of paralysis of right side appeared. Seen at 10 A.M. Mouth drawn to left; speech thick; tongue put out straight; right hand numb, and tactile sensation diminished; pupils alike. Mind clear, but sentences confused. Often used she for I, &c., and sometimes entirely irrelevant words. Pulse 120, rising. High toned fiddlestring murmur with first sound of heart, most distinct over aortic valves, and transmitted to top of sternum.

3 P.M. Worse. Sensible, but unable to pronounce more than the first words of a sentence.

9 P.M. Seen by Dr. Wyman. Pulse 156. Murmur, blowing and heard over larger space; up carotids and down abdominal aorta. Right hand and leg motionless. Right thumb turned in; wrist dropped.

Feb. 20th.—Rallied a little, but failed, and died on morning of 22d.

Autopsy.—By Dr. Fitz. His diagnostic summing up is as follows:—

Acute pachy-meningitis, and on left side, probably embolic. Old adhesive pleurisy, with recent circumscribed pleurisy. Hypostatic (desquamative) pneumonia. Enlarged spleen. Embolic nephritis. Fibromyomata, multiple, of uterus. Fatty degeneration of heart, with acute vegetative ulceration; aortic endocarditis.

CARDIAC DULNESS, ITS EXTENT AND SIGNIFICANCE.—From the formation and position of the heart, it is obvious that, though we can and may percuss out the whole of the cardiac dulness, this is quite unnecessary; it is only of importance to ascertain its greatest extent of dulness vertically and transversely. Increase of vertical dulness rarely indicates any alteration in the size of the heart itself, but is usually either due to hepatic enlargement, readily ascertained by an extension of these exploratory methods to the liver itself, or to pericardiac effusion—the former dulness, as a rule, extending below the sixth rib, the latter above the third; while a simple change of position of the heart, which may arise from various causes, is indicated by a transference of the normal dulness upwards or downwards, without any change in extent. The apex-beat, except in certain abnormal conditions, is, from the formation of the heart, the part which extends farthest to the left, and being, as a rule, perceptible to the touch, only requires to be percussed out in those exceptional circumstances where the apex beats beneath a rib, and not in an interspace. The right auricle is, of course, that part of the heart which extends farthest to the right, and being extremely dilatible, and readily influenced by any obstacle to the onward flow of blood, transverse dulness about the level of the fourth rib comes to be an important indication of some obstacle to that onward flow, and therefore of an enlargement of the heart, chiefly in its auricular region. These, therefore, are the chief points in regard to which we look to important information from the percussion of the cardiac dulness:—Increase of dulness above the third rib indicates, as a rule, pericardiac effusion. Increase of the transverse dulness at the level of the fourth rib indicates obstruction to the circulation. If the apex-beat be displaced to the left and downwards, the obstruction is probably aortic, and has primarily influenced the left ventricle; if the apex-beat be not displaced downwards, the obstruction is either mitral or pulmonary in its origin.—“On Diagnosis of Diseases of the Heart,” by GEO. W. BALFOUR, M.D.—*Edinburgh Medical Journal*, June, 1874.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 31, 1874.

WITH the issue of the present number, the connection of the undersigned with the BOSTON MEDICAL AND SURGICAL JOURNAL ceases. The announcement of the sale and transfer of the work to other hands has already been made, and the present publishers congratulate its readers and patrons that it passes over to those who are so well qualified not only to maintain its long-established character and reputation, but to raise them still higher. They also take this opportunity to express their sincere thanks to the medical gentlemen of this city, still living, who from time to time, with small pecuniary compensation, have occupied the position of Editor of the JOURNAL, and whose labors have mainly been instrumental in giving to it character and respectability. Among the list of the deceased who have filled this important post, it is interesting to find the honored name of the grandfather of the two by whom it is now so worthily occupied. The present Editorial managers are deserving of especial thanks, not only for their own labors, but for expenses incurred in securing the labors of others.

The connection of the Publishers with the subscribers to the JOURNAL is one which has, in many instances, been of long continuance, and will remain indissolubly associated with many pleasant and interesting remembrances. An agreeable intercourse with many brother publishers, in the way of exchanges, is also now severed. Some of the periodicals thus received have come to the JOURNAL office many years, and a vacancy will be felt on their withdrawal.

The senior partner has been connected with the JOURNAL ever since it assumed its present shape and name, in 1828; and, previous to that, he was also engaged in printing the *Medical Intelligencer*, from its first issue, under the management of Dr. J. V. C. Smith, in 1823. Though changes have taken place in the work in this long course of years, it has always maintained the characteristic with which it started, that of a *weekly Medical Journal*—then an entire novelty in this country; and its regular issue during these more than twenty-five hundred weeks has never been interrupted. It is gratifying now to realize that its frequent and continuous visits have been prized by its readers, and also that its general management has been such as to maintain its existence for a period far beyond the average age of medical periodicals, and with scarcely a rival in New England during the whole time.

Again commending the new managers and the present subscribers of the JOURNAL to the favorable regards of each other, and hoping their mutual intercourse may be as pleasant and lasting as that which now comes to a close, the undersigned take their leave of the work as its proprietors and publishers.

DAVID CLAPP & SON.

THE Editors feel that it is but a slight mark of their respect to the member of the firm that so long has published this JOURNAL, to offer

them the leading place in the last number that comes from their press. The farewell will be read with interest wherever the JOURNAL is known. The profession, not only of Boston and New England, but of the entire country, is greatly indebted to the publishers, and particularly to the senior partner, for having maintained a good medical journal for nearly half a century. Those of experience in such matters know how difficult, thankless and of little profit the labor must have been. The only reward is the conviction that the work has been neither fruitless nor unappreciated. Indeed, it is no small triumph to have seen the JOURNAL maintain its position among the very first, though in competition with others backed by the means and influence of some of the greatest publishing houses in America. It is thought that the time has come when the JOURNAL should profit by similar advantages; but whatever success may be in store for it, neither the public nor the Editors will forget that the foundation was laid by those who to-day take their leave.

WE regret exceedingly that we are obliged, for want of room, to postpone to another occasion such extended notice of the recent communication made to the City Council by the Board of Health, touching the matter of the city sewerage, as the importance of the communication demands. We shall embrace an early opportunity, however, to notice it at length, and meanwhile commend it to the thoughtful attention of all who are interested in the sanitary welfare of the city.

PERNICIOUS PROGRESSIVE ANÆMIA.—Under this title, states the *Medical Times and Gazette*, Nov. 21, 1874, Dr. Biermer, of Zurich, has described an affection which differs from ordinary simple anæmia in a marked manner, and which seems to be a disease *sui generis*. In five years, he has met with fifteen cases of it in patients varying from eighteen to fifty-two years of age; the majority being women. It frequently followed chronic diarrhœa, and child-bearing seemed especially to predispose to it. The symptoms were extreme pallor, a swollen look of the skin of the hands, feet and face, weakness, giddiness and palpitation of the heart, loss of appetite and a feeling of pressure in the epigastrium. Transient diarrhœa and attacks of feverishness, without the fever assuming any particular type, also occurred. Marked anæmic murmurs were sometimes present, but no organic disease of the heart was ever detected *post mortem*. With all the symptoms of failing health, no actual diminution of the fat covering the body could be made out. Ecchymoses in the retina, small petechiæ under the skin, and, at times, hæmorrhage from the nose and kidneys took place. Transient paralyses were probably due to small hæmorrhages into the brain-substance. Towards the end of life, drowsy sometimes set in and delirium also occurred. The course of the disease was chronic and the termination fatal. The necropsy invariably showed a partial fatty degeneration of the papillary muscles of the heart, and fatty degeneration of the small bloodvessels of various organs. No treatment has as yet been of any avail. Biermer's observations have been confirmed by Professor Immermann, of Basle, who insists on certain diagnostic points which distinguish the affection from diseases in which poverty of the blood is a prominent feature. It differs from chlorosis in its steady and

uninterrupted development, and from marasmus of other kinds in the retention of the fat which covers the body. It has a superficial resemblance to albuminuria, but in pernicious anemia the urine either contains no albumen or only a trace. The absence of enlargement of the spleen and lymphatic glands separates it from leucoeythæmia, and the absence of pigmentation of the skin distinguishes it from Addison's disease. From the fact that all the early cases which were observed occurred in the neighborhood of Basle and Zurich, it was assumed that there must be some local cause for the affection, but of late, cases have been observed elsewhere.

NEUROMATA CURED BY SECTION OF A NERVE-TRUNK.—Professor Kosinski, of Warsaw, has cured a case of multiple neuromata by division of a nerve-trunk.

The patient, aged 30 years, presented himself on account of painful, knotty tumors, which were small and painless when he first noticed them, but which afterwards became increased in size and painful while he was performing long military marches. The tumors were on the upper and outer surfaces of the thigh and over part of the buttock; they were round or oval in shape, and varying in size from a pin's head to a hazel-nut. To determine their nature, one of the most painful was removed, and a microscopic examination showed it to consist of gray nerve-fibres mixed with fibrous tissue, indicating the probable origin in the cutaneous extremity of a nerve, obviously, from their situation, the small sciatic and external cutaneous.

After trying all sorts of medication without success, Professor Kosinski determined to excise a piece of the nerve, with the view of rendering the tumors painless, but without any expectation of diminishing their size. By an oblique incision, almost in the direction of the gluteal fold, the small sciatic nerve was reached, and a portion of it, an inch long, was removed as far as possible under the edge of the gluteus maximus. The immediate effect of the operation was the loss of sensibility in the tumors themselves, as well as in the whole region occupied by them. A few, however, on the anterior and outer parts of the thigh and in the sciatic region had their sensibility only partially destroyed. Whilst the wound was granulating, they began to diminish in size, so that at the end of a few weeks the larger ones had been reduced by a half and the smaller ones had almost completely disappeared. At the end of four months, it was ascertained that the process of disappearance was still going on, and that those which remained had become completely painless.—*Medical Times and Gazette*, Nov. 24, 1874.

APHORISMS FROM THE *Medicinisch-Chirurgische Rundschau*.—*Whooping Cough.* "Whenever I observe a patient affected with a catarrh, accompanied by fifteen or twenty paroxysms of coughing in a minute, and particularly when this catarrh continues from four, six, eight to ten days, being attended with severe fever, I regard these symptoms as sufficient to justify the diagnosis of a specific catarrh (whooping cough)."

"The initiatory fever of a bronchial catarrh seldom continues longer than forty-eight to seventy-two hours, except when capillary bronchitis is superadded. In children affected with whooping cough, the fever usually lasts, on the contrary, from seven to fourteen days."

"Whenever, in the course of a whooping cough, the number of paroxysms exceeds forty in twenty-four hours, the condition of the patient is to be regarded as critical. If it exceeds sixty, the physician is justified in predicting an unfavorable termination to the disease."

"Whooping cough lasts, as a rule, between fifty and sixty days; in exceptional cases, eight days only or less. On the other hand, it is frequently prolonged to a period of several months, and even to an entire year."

"In the case of pregnant women suffering from whooping cough, an abortion appears to be induced in rare instances only."

"The longer and severer the last paroxysm in whooping cough, the sooner the next attack.

"Whooping cough, above all other bronchial affections, has a tendency to develop latent tuberculosis; and, for this reason, in the case of children belonging to tuberculous families, is to be regarded as a very dangerous disease.—TROUSSEAU, from the German Translation of Culman.

RECOVERY FROM MELANCHOLIA AFTER FOUR YEARS' REFUSAL OF FOOD.—A gentleman, aged forty, after increasing symptoms of mental depression, fell into a profound state of melancholia in June, 1870, and was sent to a private asylum, where he lay for four years in a complete state of inertness, rarely using a muscle voluntarily, except to clench his jaws when the attempt was made to feed him, and to close his eyelids and turn up the globes, when efforts were made to examine his eyes. During this entire period he would not speak or eat, and was forcibly fed, dressed and cared for; and although life was sustained, he became very much reduced. In May last, he suddenly woke up, as it were, into social life, spoke, ate, and although scarcely able to move at first, rapidly regained health, weight, and complete mental soundness. Asked to explain his behavior, he said that he was under a profound sense of personal degradation. He felt that he was growing into a kind of monster, unfit to live or even to be seen; that the birds on the trees were mocking at him, and that he was surrounded by devils.—*British Medical Journal*, Nov. 28, 1874.

It is proposed, at the University of Cambridge, to institute an examination specially designed for those intending to hold public appointments as officers of health. The following are recommended as subjects of examination:—

"1. Physics and chemistry; the principles of chemistry and methods of analysis, with especial reference to analyses (microscopical as well as chemical) of air and water; the laws of heat, and the principles of pneumatics, hydrostatics and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, and sanitary engineering in general. 2. Laws relating to public health. 3. Sanitary statistics. 4. Origin, propagation, pathology and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water-supply and disposal of sewage and refuse; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season and climate."—*British Medical Journal*, Dec. 5.

THE ADMINISTRATION OF APERIENTS AFTER OPERATIONS ON THE RECTUM.—In operations on the rectum, the practice hitherto has been to confine the bowels, by means of opium and a carefully restricted diet, for at least a week. To this practice may often be ascribed the failure to obtain adhesion by first intention, or breaking down of the adhesions the very first time the bowels are relieved. It has been recently proved that a regular daily evacuation of the bowels, by means of small doses of castor oil or some gentle saline aperient, favors the healing process, lessens the tendency to unhealthy inflammation and consequent non-union of the parts, and obviates the risk of the adhesions breaking down by the passage of the hardened mass of feces that had been allowed to accumulate in the rectum, or by the distension of the bowel by an enema administered by a careless nurse.—*British Medical Journal*, Dec. 5.

FREQUENCY OF RESPIRATION IN CHILDREN.—In new-born children, the frequency of respiration ranges from 23 to 44 a minute; between the ages of 1 and 4 it varies from 20 to 36, and in older children from 20 to 28.—Dr. A. MONTI, *Obst. Jahrb. f. Pad.*

Correspondence.

THE POMEROY CASE.

MESSRS. EDITORS.—Now the case is decided, I wish to make a few comments on Commonwealth vs. Jesse H. Pomeroy. I have not seen this boy, and have little sympathy, sentimental or otherwise, with so debased and defective a specimen of humanity. It is of little consequence, in one sense, whether he is hung at once in deference to public opinion, as expressed in the daily and medical press of Boston, or confined for life in a prison or hospital. It is of much importance that such exceptional beings should be properly classified.

The physician asks himself, in view of the well-known catalogue of this boy's atrocities, have we a morbid specimen, a case of disease before us, or do all these deeds of fiendish aspect merely show us a phase of healthy, normal boy nature? The press speak of the actor as a fiend, a brute, a moral monster rather than a human being, but inconsistently term the acts of such an actor crimes. In the last JOURNAL, you say that the boy's *tastes* were *morbid*, that he had a *taste* for cruelty, exaggerated in degree, but not unnatural in kind; that the temptation to commit the crimes was great (growing out of his morbid taste for cruelty), that his power to resist was feeble (defective will power), but that *there is no reason to doubt that it was sufficient*. That is just the question. Was it sufficient? Dr. Tyler and Dr. Walker, after personal examination of the prisoner, thought there *was* reason to doubt, and that the prisoner should have the benefit of that doubt. It was Dr. Walker, by the way, who suggested the possibility of masked epilepsy, and not Dr. Tyler, as you have it. Dr. Choate, although he believed the prisoner sane, thought he had a peculiar proneness to certain forms of sin, with weakness to resist, and that his peculiarities were moral and not intellectual.

It is conceded by all, then, that moral deficiency, weakness of will and fair intellect are the characteristics of this boy's mind. The evidence also went to show that his peculiarities were congenital rather than acquired, shown in early childhood, but developing with horrible force and effect at puberty. This condition is not a very uncommon one, and is known among alienists as *moral idiocy*, in distinction from intellectual deficiency. I made brief mention of three cases of this kind, in the JOURNAL for Sept. 24, 1868, and have met with several since, though none where the results were as startling as in the present case. The collateral evidence, aside from certain specific acts, is sometimes strong and sometimes weak; but with or without these side lights, it is not difficult to distinguish a moral idiot from the ordinary "bad boy." To show this difference plainly and convincingly is quite another thing.

Exception is quite generally taken to regarding the atrocity of the offence as an evidence of insanity or moral deficiency. Why not consider the nature of the act in question, and, if you choose, that alone, as proving or disproving insanity? How do physicians diagnosticate chorea, for instance? They see certain motiveless, incoördinate acts, largely at variance with ordinary muscular movements. The patient says he cannot control them. A patient talks incoherently, and we call him delirious. He persists in styling himself Emperor of China, for instance, and we call him insane. He appears depressed, and says he has suicidal or homicidal impulses. We call him insane and dangerous, and send him to an asylum. We call a boy, who from birth has been unable to talk, or to learn to read, or to exercise any useful employment, an idiot. If he kills a comrade, we do not hang him, because he is intellectually deficient.

But boys are born morally deficient, while developing a fair amount of intellectual power. They are incapable of receiving and assimilating ideas touching their moral relations. Their feelings are abnormal and perverted,

selfish indifference taking the place of natural affections; and cruelty, with other bad passions, having unrestrained sway, in spite of good training, and as the direct result of congenital moral deficiency. This condition is recognized by all alienists in cases where popular feeling can have no influence. The evidence is the same in this as in other diseases. We observe a moral deficiency and incapability for the assimilation of moral ideas, with vicious, perverse, cruel and violent conduct, acts of crime, such as theft, incendiarism, torture and murder, more or less motiveless in the ordinary sense, and plainly growing out of natural defect rather than an ordinary yielding to temptation. This character is evident at an early age, and is especially demonstrative at puberty, coming under more or less restraint as the patient arrives at adult age. No punishment or reward, no instruction or restraint of religious teaching has any effect. The patient, like Pomeroy, simply says, "I couldn't help it," or "I had to do it." The greater the number and atrocity of his acts, the earlier their appearance, the feebler the apparent motive, the more readily do we concede a condition of partial or more perfect moral idiocy.

We know a moral monster just as we do a physical one, when we see him; only men are not trained to trust their observation of mental phenomena as they do their visual organs. The difficulty in classifying the Pomeroy case is, not that experts have a theory of insanity which they cannot sustain, but that the public and the jury have a theory that moral atrocity indicates wilful depravity in all cases, when unaccompanied by intellectual defect or disease. They say, by their verdict, this boy *knew* what he was doing, and that it was wrong; but did he *feel* the outrageous nature of his conduct at the time, and could he at the time restrain his horrible impulses? When we merely read of his tortures we shudder, and we unconsciously assume in him the same standard of feeling. But it was the congenital absence, it may be, of this moral sense which we possess that enabled him deliberately to tie up little boys and girls and to strip and torture them, in two instances, to death. It is evident he felt no compunctions when he danced round one of his mangled victims, forcing him to repeat the Lord's prayer, mingled with obscenity; and it is evident that he has felt no remorse since.

If society chooses to consider such conduct as the outcome of a sound mind, under modern educational influences, merely a fair specimen of what we can do hereabout in the natural depravity line, so much the worse for society. If society persists in hanging this premium "bad boy," instead of trying the experiment of cultivating a moral sense in such barren soil, so much the worse for the boy.

T. W. FISHER.

Boston, Dec. 24, 1874.

AMERICAN MEDICAL ASSOCIATION.—A CORRECTION.

MESSRS. EDITORS,—Will you permit an old Fellow to "kindly correct" an error, into which your correspondent and yourselves inadvertently seem to have fallen, in regard to "the power to choose" delegates to the American Medical Association?

When the Massachusetts Medical Society was requested to join in the establishment of that Association, it gave up the whole matter at once to its *Councillors*. After investigation, and an assurance that the Association "did not assume any power of coercion," the *Councillors* consented to send delegates. The delegates were then, and for years afterwards, chosen by the *Councillors*. When it became difficult and burdensome to make the selection, the *Councillors*, on motion of Dr. Henry I. Bowditch, voted to "authorize the District Societies to appoint delegates," to be "entitled delegates of the Massachusetts Medical Society," not of the District Societies. There was nothing whatever "advisory" in all this.

The "power to choose," thus derived directly from the *Councillors*, has never been revoked, though suspended for *one year only*—1871; and District

Societies can now, as in years past, choose delegates for the coming year, if they think it worth while.

More might be added, but enough has been advanced to show where the power lies. The purpose, duties, limitations and privileges of District Societies are clearly set forth in the Charter (Digest, articles xii. to xv.) now in the hands of every Fellow of the society. COUNCILLOR.

Medical Miscellany.

AT THE LAST MEETING of the Middlesex South District Medical Society, resolutions were passed in memory of the late Prof. Jeffries Wyman and Drs. Anson P. Hooker and Theodore P. Robinson.

DR. E. WARREN SAWYER, a graduate of the Harvard Medical School, has obtained the position of Lecturer on Obstetrics at the Rush Medical College, Chicago, after a competitive examination with thirteen others. Each candidate was called on to deliver an extemporaneous lecture on a given subject before the faculty and students.

BEDBUGS are said to be most readily destroyed by *nux vomica* in the form of the tincture, combined with liquor ammoniac, which mixture is to be freely applied to the joints and cracks of the bedstead. It is equally efficacious against cockroaches, water-bugs and other vermin, and if applied to the harness of horses, the animals will be no longer annoyed by flies.—*Apotheker-Zeitung*.

THE EDITOR of *The Richmond and Louisville Medical Journal* and the *American Medical Weekly* proposes to give to each subscriber to the first journal, twelve handsomely engraved portraits of distinguished European and American physicians, and to the subscribers to the *Weekly*, one of these portraits in each of the two volumes for 1875. We are glad that the affairs of our esteemed contemporaries are in such a flourishing condition as this should imply.

PASSAGE OF SCISSORS THROUGH THE ABDOMINAL WALLS.—At a recent meeting of the New York Pathological Society, Dr. H. B. Sands presented a pair of scissors, five inches long, which had been swallowed by a woman affected with suicidal mania. The scissors had subsequently appeared at the abdominal wall, just above the umbilicus and to the right of the median line, and, by unfastening the rivet, first one blade and then the other was successfully removed.—*New York Medical Journal*.

CATHETER IMPACTED IN THE FEMALE PELVIS.—At a recent meeting of the Royal Medical and Chirurgical Society, Mr. Barwell reported the case of a female whom he found suffering from a large abscess over the hip, with a sinus in front of the anus, all of which seemed to have originated in an instrumental abortion produced upon her twenty months previous. A subsequent examination, made after the abscess had been evacuated, revealed the presence of a gum-elastic catheter, lying up between the uterus and bowel. A small opening was detected communicating with the rectum, through which the catheter was forced, and then drawn out at the rectum.—*Lyon Medical*.

NOVEL USE OF THE ASPIRATOR.—Dr. A. Bell, of Newcastle-upon-Tyne, has recently employed the aspirator successfully in a case of retroversion of the gravid uterus. The patient was between four and five months advanced, had suffered extremely, and was greatly prostrated. The source of her trouble having been ascertained, a careful and determined effort was made to replace the uterus, but without success. It then occurred to Dr. Bell to draw off the liquor amnii through the rectum by the aspirator. No unfavorable symptoms followed the operation; upon the next day uterine action set in, and the woman was safely delivered.—*British Medical Journal*, December 5.

TREATMENT OF PERSISTENT NEURALGIA.—Amongst the many remedies that have been tried for rebellious neuralgias, M. Desnos, of the Hôpital de la Pitié, recommends the following combination as being frequently successful; and even in cases where it has failed, if tried again after the lapse of a short time, it may succeed. He first applies over the painful spot three or four mustard poultices, and then rubs into the reddened surface a liniment composed of—

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|--------------------|-----------|
| Oil of hyoscyanum, | 3iiss.; |
| Laudanum, | 3ss.; |
| Chloroform, | 3iiss. M. |

—*Journal de Médecine; The Practitioner.*

BOOKS AND PAMPHLETS RECEIVED.

The Medico-Chirurgical Tariffs used by the Shropshire Ethical Branch of the British Medical Association. 1874. Pp. 12.

Free Phosphorus in Medicine; with special Reference to its Use in Neuralgia. By J. Ashburton Thompson. London: H. K. Lewis. 1874. Pp. 275.

Contributions to the Annals of Medical Progress and Medical Education in the United States, before and during the War of Independence. By Joseph M. Toner, M.D. Washington: Government Printing Office. 1874. Pp. 118.

The seventy-eighth Annual Report of the Boston Dispensary. 1874. Pp. 26.

Report of the Health Officer of San Francisco. Henry Gibbons, Jr., M.D. 1874. Pp. 71.

Catalogue of the Specimens in the Pathological Museum of the Philadelphia Hospital. Prepared by James Tyson, M.D., assisted by R. M. Bertolet, M.D. Philadelphia. 1874. Pp. 21.

Petition of the American Medical Association in behalf of the Medical Corps of the Army. Washington, 1874. Pp. 24.

An Address delivered before the McDowell Medical Society of Kentucky, Nov. 4, 1874. By Wm. T. Briggs, M.D., of Nashville. Pp. 15.

Annual Report of the Surgeon-General of the United States Army. 1874. Pp. 21.

Clinical Ureametry. By Henry G. Piffard, M.D. (From the New York Medical Journal, December, 1874.) New York. Pp. 7.

MORTALITY IN MASSACHUSETTS.—Deaths in thirteen Cities and Towns for the week ending December 19, 1874.

Boston, 170; Worcester, 13; Lowell, 18; Milford, 1; Chelsea, 3; Cambridge, 14; Salem, 7; Lawrence, 8; Springfield, 8; Lynn, 8; Taunton, 4; Newburyport, 4; Fall River, 12. Total, 270.

Prevalent Diseases.—Consumption, 51; pneumonia, 27; measles, 15; croup, 9; diphtheria, 4. Boston reports 8 deaths from croup and 4 from diphtheria.

CHAS. F. FOLSOM, M.D.

Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 27, 158. Males, 77; females, 81. Accident, 2; apoplexy, 5; inflammation of the bowels, 1; bronchitis, 8; inflammation of the brain, 1; congestion of the brain, 1; disease of the brain, 4; cancer, 5; cholera infantum, 1; consumption, 24; convulsions, 2; croup, 3; debility, 1; diarrhoea, 1; dropsy, 1; dropsy of the brain, 2; dysentery, 1; diphtheria, 5; epilepsy, 1; erysipelas, 1; scarlet fever, 8; typhoid fever, 4; gangrene, 2 gastritis, 3; disease of the heart, 7; intussusception, 1; insanity, 1; disease of the kidneys, 5; diseases of the liver, 2; congestion of the lungs, 2; inflammation of the lungs, 16; marasmus, 5; measles, 3; old age, 7; paralysis, 2; pleurisy, 2; premature birth, 6; peritonitis, 2; puerperal disease, 3; suicide, 2; syphilis, 1; tumor, 1; whooping cough, 1; unknown, 2.

Under 5 years of age, 57; between 5 and 20 years, 14; between 20 and 40 years, 34; between 40 and 60 years, 19; over 60 years, 34. Born in the United States, 109; Ireland 36; other places, 13.

